UK Subject to change

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0210/23

USER'S MANUAL

Ferm Angle Grinder

FAG-115N

Ferm®

Art.nr. 719540
Screwfix art.nr 17899

UK English

FERM FAG-115N
ANGLE GRINDER 115 MM
USERS MANUAL

TECHNICAL SPECIFICATIONS

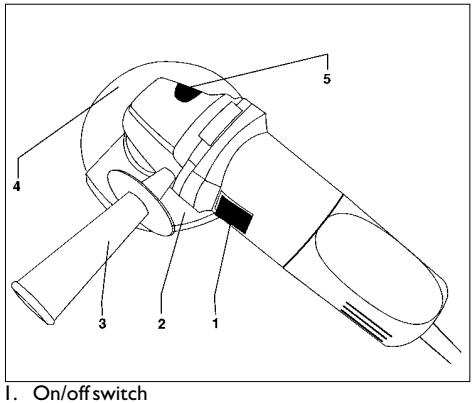
Voltage	230 V
Frequency	50 Hz
Power input	710 W
No-load speed	11000/min
Disc diameter	115 mm
Spindle dimension	M14
Weight	2.2 kg
Lpa (sound pressure)	89.6 dB(A)
Lwa (acoustic power)	102.6 dB(A)
Vibration value	1.9 m/s2

PACKAGE CONTENTS

The package contains:
1 Angle grinder
1 Side handle
1 Spanner
1 Set carbon brushes
1 Instruction manual
1 Guarantee card

Check the machine, loose parts and accessories for transport damage.

PRODUCT INFORMATION



1. On/off switch
2. Guard
3. Side handle
4. Grinding disc
5. Spindle lock

SAFETY INSTRUCTIONS

The following pictogram is used in these instructions for use:

⚠ *Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.*

Carefully read this manual before using the machine. Make sure that you know how the machine functions and how to operate it. Maintain the machine in accordance with the instructions to make sure it functions properly. Keep this manual and the enclosed documentation with the machine.

Ferm products are manufactured to high quality standards they are safe and fit for purpose at time of sale, but all tools can be dangerous if the correct precautions are not taken. Always follow these instructions, do not carry out the operation until you are sure you can do so in safety. Remember to consider the work environment for safe operation as well as safety for tool use.

⚠ ***Warning!*** *When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product. Save these instructions for future reference.*

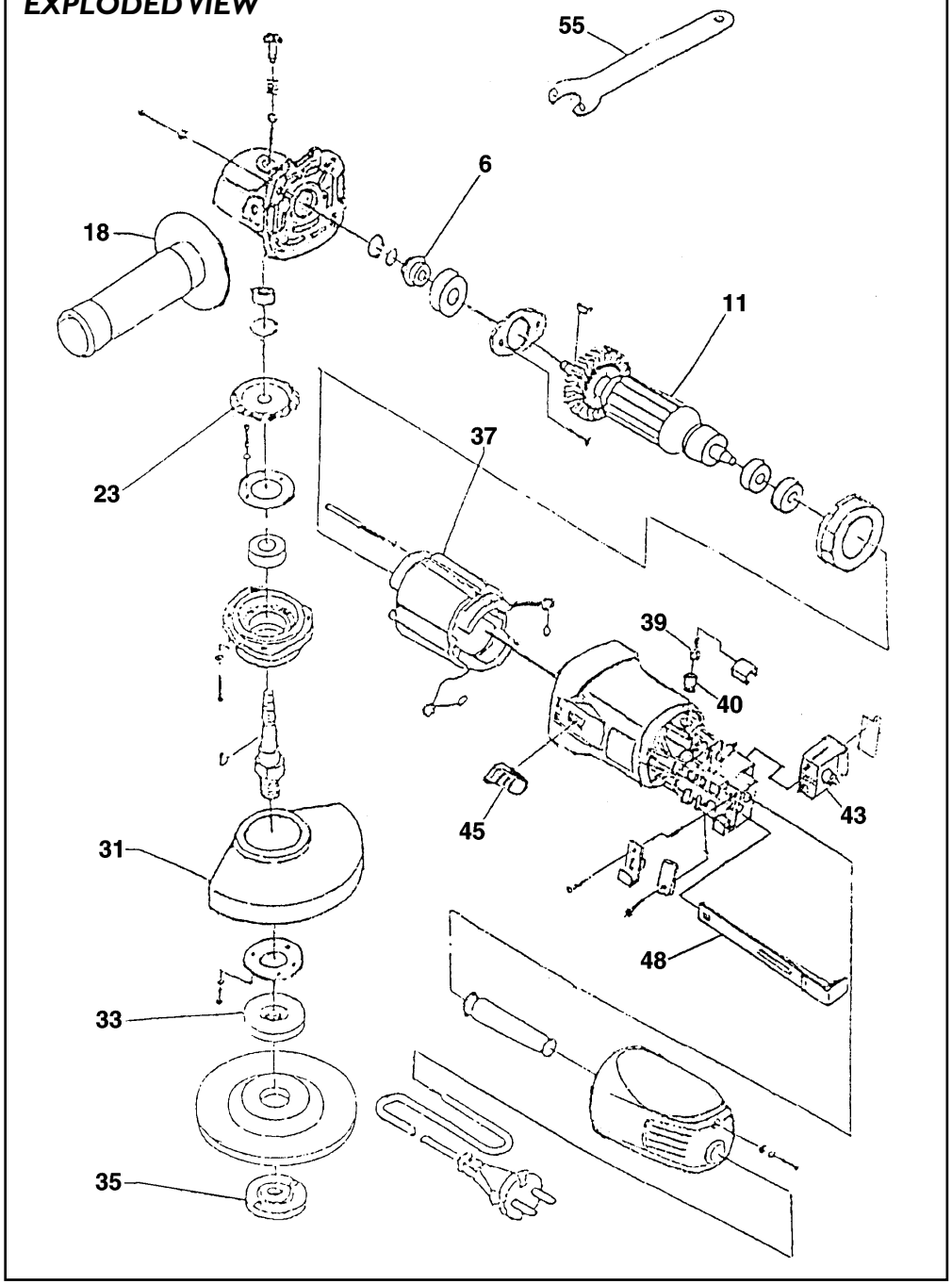
PERSONAL SAFETY

Use Personal Protection Safety Equipment
Protect eyes with safety glasses or goggles note: the use of safety protective eyewear without the CE mark can lead to serious injury if the lens breaks. A suitable dust mask should be worn if cutting; drilling or sanding is dusty, in particular chipboard or MDF. Approved safety footwear and headgear should worn as appropriate, for example on building works or when heavy weights are involved. Wear suitable gloves and apron to protect against sparks/debris. Wear earplugs or ear defenders.

Dress properly
Do not wear loose clothing or jewellery. It can get caught in moving parts. Non-skid footwear is recommended when working out doors. Wear protective hair covering to contain long hair

Stay alert
Watch what you are doing Use common sense. Do not operate tools when tired or after taking alcohol or prescription/ non-prescription drugs.

EXPLODED VIEW



SPARE PARTS LIST FAG-115N

REF NR	DESCRIPTION	FERM NR
6	PINION GEAR	406058
11	ARMATURE	406059
18	SIDE HANDLE	406274
23	SPINDLE GEAR	406066
31	PROTECTING COVER	406718
33	FLANGE INSIDE	406846
35	FLANGE OUTSIDE	406847
37	STATOR	406060
39	CARBON BRUSH	406061
40	CARBON BRUSH HOLDER	406062
43	SWITCH	406063
45	SLIDE SWITCH KNOB	406064
48	SWITCH DRAW BAR	406065
55	WRENCH	406814

OPERATIONAL SAFETY

Warning! Never use the machine for grinding magnesium workpieces. Use fibre reinforced discs only.
Do not use near flammable materials or people.
Do not use the machine to grind/cut deeper than the maximum grinding depth of the disc.
Do not use grinding discs for deburring.

Concentrate
Routine and repetition can lead to mistakes. Remember that a slight lack of concentration can result in serious injuries in a split second

Keep work area clean
Cluttered areas and benches invite injuries
Consider the work environment Do not expose power tools to rain or use them in damp or wet locations. Keep work area well lit. Do not use power tools in the presence of flammable liquids, vapours or gases.

Guard against electric shock
This unit contains dangerous voltages. Use a RCD (residual current device) to provide protection against electrical shock. Prevent body contact with grounded surfaces (e.g. pipes, radiator, ranges or refrigerators)

Keep children and pets away
Do not let children or pets come into contact with the tool, extension cable or work area.
Do not force the tool It will work better and safer at the rate for which it was intended

Use the right tool
Do not force small tools or attachments to do the job of a heavy-duty tool. Do not use tools for purposes for which they were not intended; for example do not use a circular saw for cutting trees or logs

Do not abuse cable
Never carry the tool by the cable or pull it to disconnect it from the power socket. Keep the cable away from heat, oil and sharp edges. Do not touch the metal plug pins when connecting or removing the plug.

Secure Work
Use clamps or a vice to hold work. It is safer than using your hand and it frees both hands to operate the tool

Do not over-reach
Keep a proper footing and balance at all times

Disconnect tools from power supply
When not in use, before servicing and when changing accessories such as blades, bits and cutters.

Always switch off and unplug the angle grinder from the power supply before making adjustments or changing grinding discs.

Remove adjusting keys and wrenches
Ensure that they are removed from the tool before switching on.

Avoid unintentional starting
Do not carry plugged in tools with your finger on the switch. Check that the switch is off before plugging in to socket.

Extension cables
Use only three core earthed extension cables suitable for the power input of the tool (minimum cable size 1.5mm2). Plug into an earthed socket only.
When using a cable reel unwind it fully. Do not use long extension cables.

Outdoors use
If the tool is suitable to be used outdoors, only use an extension cable intended for outdoor use and marked accordingly. Use a RCD (residual current device) to provide protection against electrical shock. Do not use in rain or damp conditions.

Connect a dust extraction device
Whenever there are facilities for fitting a dust of fume extraction system, make sure it is connected and used.

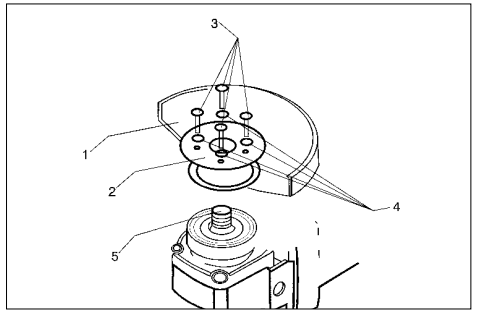
Use recommended accessories
The use of any other accessory or attachment other than recommended in the instructions or catalogue may present a risk of personal injury. Use extension cables suitable for the power input of the grinder (minimum cable size 1.5mm2). When using a cable reel unwind it fully.

ASSEMBLING THE ACCESSORIES

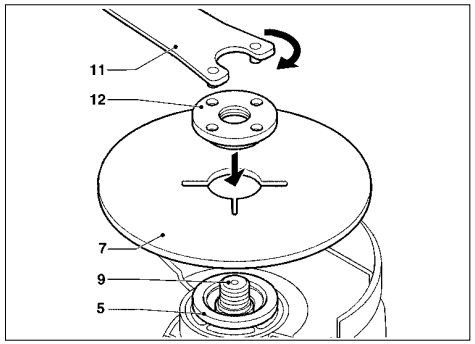
Ensure the grinder is unplugged from mains.

TO MOUNT THE GUARD

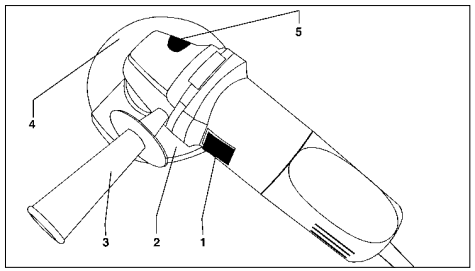
- Remove the flange nut (anticlockwise) and pull the flange from the spindle (5). Unscrew the 4 screws/ washers (3 and 4) and remove the guard mounting washer (2).
- Put the guard (1) on the machine raised edge up and secure with the guard mounting washer and screws/washers. Tighten the screws firmly.
- Put the flange and flange nut back on the spindle.



TO MOUNT A GRINDING DISC
- Check the disc is the correct type and does not touch the edge of the guard.
- Remove the flange nut (12) from the spindle.
- Check the flange (5) is the right way up (flats on spindle engage with lugs on flange)
- Put a grinding disc (7) on the flange
- Screw the flange nut onto the spindle.
- Press the spindle lock button and turn the spindle (9) until the lock engages.
- Keeping the spindle lock button pressed, securely tighten the flange nut with spanner (11) provided.
- Release the spindle lock button and check the spindle in unlocked by rotating the disc.



MOUNTING THE SIDE HANDLE
- Screw the side handle (3) clockwise into the threaded hole either on the left or right side of the machine. Check that it is firmly attached and cannot loosen unexpectedly.



USING THE ANGLE GRINDER

BEFORE OPERATING
- Check the voltage on the angle grinder corresponds with your power supply voltage and that the plug and lead are in good condition.
- Check maximum speed marked on the grinding disc is the same or less than the maximum speed of the machine. The machine's speed must not be greater than the speed marked on the disc.
- You have the correct type of disc for the machine and that it is mounted correctly. Do not use parts other than supplied with the machine to make the disc fit properly
- Ensure the threaded part of the spindle is covered by the flange nut (12) and cannot touch the grinding surface.
- Inspect the grinding disc for any damage – do not use cracked, ripped or otherwise damaged discs.
- Set the guard, rotate the guard to the best position to catch sparks and debris from the disc.
- Run idle for 30 seconds - if there is any abnormal vibration or other fault – switch off, inspect and rectify before continuing.

OPERATION
- Check the switch is in **OFF** position
- Plug into a suitable mains supply and switch on.
- To switch **ON** - slide the switch forwards to the "**I**" position.
- To switch **OFF** press the switch which will jump to the position "**O**"

DURING USE
- Do not put the machine down with the motor still running.
- Keep your finger off the spindle lock button it must not be pressed while the machine is running
- Do not put the machine down on a dusty surface – dust will get into the air vents and damage the motor.
- Regularly inspect the disc during use for signs of damage or wear and replace when required.
- Switch the machine off before removing the plug from the mains socket.

MAINTENCE, CARE AND REPAIR

Ensure the grinder is unplugged from the mains.Switch off and unplug the machine before carrying out any cleaning or maintenance work.

CLEANING
Do not use flammable liquids to clean the angle grinder

FAULTS
Switch OFF immediately at the mains plug and remove the plug when:
- The plug or cable is damaged.
- The switch on the machine is defective.
- You smell or see smoke caused by scorched insulation in the machine.

Overheating
- The ventilation slots are blocked with dirt. Clean with dry cloth.
- The machine does not start when switched on. Check the mains lead and the fuse/plug. Take to your Ferm Dealer for repair
- The motor is defective . Take to your Ferm Dealer

MAINTAIN TOOLS WITH CARE
Keep the tool clean for better and safer performance.
Store the discs properly in accordance with the maker's instructions.
Follow instructions for changing accessories. Inspect tool and extension cables periodically and if damaged, have them repaired by a qualified person or authorised service body. Keep handles free from oil or grease. Keep the ventilation slots clean to prevent motor overheating.

Check for damaged parts.
Do not use a tool with damaged parts, before further use a damaged tool must be carefully checked by a qualified person to determine that it will operate properly. Check for alignment of moving parts, binding or breakage of parts, mounting and other conditions that may affect its operation. A damaged part or guard should be properly repaired by an authorised service centre, unless indicated otherwise in the instruction manual. Have defective switches replaced by an authorised service centre. Do not use a tool if the switch does not turn on and off.

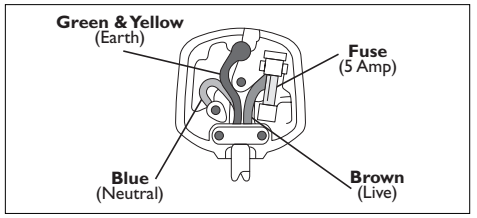
Have your tool repaired by an expert
This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result.

Storing tools
When not in use tools should be stored in the dry, out of reach of children.

ELECTRICAL INFORMATION
This product is complete with a pre-wired mains plug, it is double insulated in accordance with EN 50144 – no earth wire is required
If the plug needs replacing follow these instructions.

Wire correctly
The wires in the mains lead are coloured in the following way:

Blue	-Neutral
Brown	-Live
Yellow/green	-Earth



Securing the wires
Secure wires carefully and firmly to the correct terminals. Secure the mains cable in the plug cord grip firmly
Fit a 5-amp fuse. If a 13amp (BS1363) plug is used a (BS 1362) ASTA approved 5-amp fuse must be fitted.

Recycle/Dispose of old plug and cable
Prevent inadvertent connection to socket and risk of electric shock.If in doubt always consult a Qualified Electrician

ENVIRONMENT
Recycle the packaging according to the identification marks on it.

At the end of the product or its accessories life please recycle where facilities exist - phone the Helpline for current advice on recycling.

Helpline
For any questions relating to operational or safety matters contact:

Ferm Customer Helpline on:	**0115 966 1199**
Monday-Friday	**8am – 6pm**
Saturday	**9am – 1 pm**

GUARANTEE
The guarantee conditions can be found on the separately enclosed guarantee card.

CE DECLARATION OF CONFORMITY (UK)

We declare under our sole responsibility that this product is in conformity with the following standards or standardized documents

EN-50144-1, prEN50144-2-3, EN-55014-1, EN-55014-2, EN61000-3-2, EN61000-3-3,

in accordance with the regulations:

98/37/EEC
73/23/EEC
89/336/EEC

from 01-12-2001
GENEMUIDEN NL
W. Kamphof
Quality department